



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-5594; Directorate Identifier 2014-NM-169-AD; Amendment 39-18596; AD 2016-15-05]**

**RIN 2120-AA64**

**Airworthiness Directives; Dassault Aviation Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Dassault Aviation Model FALCON 900EX and FALCON 2000EX airplanes. This AD was prompted by a review that identified a nonconformity between the torque value applied to the screw-nuts of aileron servo actuators, and the torque value specified by the type design. This AD requires replacing certain aileron servo actuators with serviceable servo actuators. We are issuing this AD to prevent desynchronization between two servo actuator barrels, which could lead to reduced control of the airplane during roll maneuvers at low altitude.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Dassault Falcon Jet, P.O. Box 2000, South Hackensack, NJ 07606; telephone 201-440-6700; Internet <http://www.dassaultfalcon.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5594.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5594; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1137; fax 425-227-1139.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Dassault Aviation Model FALCON 900EX and FALCON 2000EX airplanes. The NPRM published in the Federal Register on April 20, 2016 (81 FR 23214) (“the NPRM”).

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0184, dated August 7, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Dassault Aviation Model FALCON 900EX and FALCON 2000EX airplanes. The MCAI states:

A quality review of recently delivered aeroplanes identified a non-conformity concerning the torque value applied to screw-nuts of aileron servo actuators, which was inconsistent with the value specified by the type design.

The subsequent investigation demonstrated that the washer which is bent on nut and rod ensures the affected selector synchronisation between two servo actuator barrels for a minimum of 2,000 flight hours (FH). After this period, a possible de-synchronization of the affected selector assembly may occur.

This condition, if not corrected, could lead to reduced control of the aeroplane during roll manoeuvres at low altitude.

To address this potential unsafe condition, Dassault Aviation issued Service Bulletin (SB) F900EX-476 Revision 1 and SB F2000EX-350 to provide replacement instructions for the affected aileron servo actuators, as applicable to aeroplane type.

For the reasons described above, this [EASA] AD requires replacement of affected aileron servo actuators with serviceable parts. This [EASA] AD also identifies that the affected aileron servo actuators can be re-qualified as serviceable parts only after a refurbishment accomplished by an approved maintenance organization.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5594.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information under 1 CFR part 51**

We reviewed Dassault Service Bulletins F900EX-476, Revision 1, dated June 25, 2014; and F2000EX-350, dated April 9, 2014. The service information describes procedures for removing the aileron servo actuator. This service information is

reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD affects 284 airplanes of U.S. registry.

We also estimate that it will take about 14 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$43,460 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$12,680,600, or \$44,650 per product.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2016-15-05 Dassault Aviation:** Amendment 39-18596; Docket No. FAA-2016-5594; Directorate Identifier 2014-NM-169-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Dassault Aviation Model FALCON 900EX and FALCON 2000EX airplanes, certificated in any category.

**(d) Subject**

Air Transport Association (ATA) of America Code 27, Flight Controls.

**(e) Reason**

This AD was prompted by a review that identified a nonconformity between the torque value applied to the screw-nuts of aileron servo actuators, and the torque value specified by the type design. We are issuing this AD to prevent desynchronization between two servo actuator barrels, which could lead to reduced control of the airplane during roll maneuvers at low altitude.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Replacement of Aileron Servo Actuator**

At the later of the applicable times specified in paragraphs (g)(1) and (g)(2) of this AD: Replace each affected aileron servo actuator, as identified in figure 1 to paragraph (g) of this AD (for Model FALCON 900EX airplanes) or figure 2 to paragraph (g) of this AD (for Model FALCON 2000EX airplanes), with a serviceable part in accordance with the Accomplishment Instructions of Dassault Service Bulletin F900EX-476, Revision 1, dated June 25, 2014; or Dassault Service Bulletin F2000EX-350, dated April 9, 2014; except where Dassault Service Bulletin F900EX-476, Revision 1, dated June 25, 2014; or F2000EX-350, dated April 9, 2014; specify to “remove” the applicable aileron servo actuator, this AD requires replacement of the applicable aileron servo actuator. A serviceable part is one that is specified in the “New P/N” column in the table of paragraph 3., “Material Information,” of Dassault Service Bulletin F900EX-476, Revision 1, dated June 25, 2014; or Dassault Service Bulletin F2000EX-350, dated April 9, 2014.

(1) For airplanes on which the aileron servo actuator was not replaced during maintenance: At the later of the times specified in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD.

(i) Within 25 months or 1,640 flight hours, whichever occurs first, since the date of issuance of the original airworthiness certificate or date of issuance for the original export certificate of airworthiness.



(ii) Within 30 days after the effective date of this AD.

(2) For airplanes on which the aileron servo actuator was replaced during maintenance: At the later of the times specified in paragraphs (g)(2)(i) and (g)(2)(ii) of this AD.

(i) Within 1,640 flight hours after replacement of the aileron servo actuator during maintenance.

(ii) Within 30 days after the effective date of this AD.

Note 1 to paragraph (g) of this AD: The affected aileron servo actuators are known to be installed before airplane delivery on Model FALCON 900EX airplanes having serial numbers (S/Ns) 265 through 270 inclusive, S/N 272 and S/N 273; Model FALCON 2000EX airplanes having S/N 243, S/Ns 246 through 258 inclusive, S/Ns 260 through 263 inclusive, S/Ns 702 through 710 inclusive and S/N 714; and during a maintenance operation on Model FALCON 900EX airplane having S/N 177, after airplane delivery.

**Figure 1 to paragraph (g) of this AD – Affected Actuators on Model FALCON 900EX**

*Airplanes*

<b>Model FALCON 900EX Airplane having S/N -</b>	<b>With Actuator Part Number (P/N) -</b>	<b>And Actuator S/N -</b>
177	103117-06	5003
265	103117-06	5002
266	103117-05	5000
	103117-06	5007
267	103117-05	5001
268	103117-05	5004
269	103117-05	5005
	103117-06	5011
270	103117-06	5012
	103117-13	5017
272	103117-05	5010
	103117-14	5016
273	103117-13	5014
	103117-14	5020

**Figure 2 to paragraph (g) of this AD – Affected Actuators on Model FALCON 2000EX**

*Airplanes*

<b>Model FALCON 2000EX Airplane Having S/N -</b>	<b>With Actuator P/N -</b>	<b>And Actuator S/N -</b>
243	103151-08	5002
246	103151-07	5000
	103151-08	5003
247	103151-07	5001
	103151-08	5006
248	103151-07	5004
	103151-08	5007
249	103151-07	5005
	103151-08	5012
250	103151-07	5008
	103151-08	5013
251	103151-07	5009
	103151-08	5014
252	103151-07	5011
	103151-08	5016
253	103151-07	5010
	103151-08	5015
254	103151-08	5017
	103151-07	5018
255	103151-07	5019
	103151-08	5022
256	103151-07	5021
	103151-08	5023
257	103151-08	5024
	103151-07	5026
258	103151-07	5027
	103151-08	5033
260	103151-08	5032
	103151-07	5035
261	103151-08	5037
	103151-07	5041
262	103151-08	5039
	103151-07	5047
263	103151-08	5044
	103151-09	5064
702	103151-07	5029

703	103151-07	5034
	103151-08	5042
704	103151-08	5036
	103151-07	5040
705	103151-08	5038
	103151-07	5046
706	103151-08	5043
	103151-07	5048
707	103151-07	5054
	103151-08	5057
708	103151-08	5045
	103151-07	5050
709	103151-08	5074
710	103151-07	5051
	103151-08	5053
714	103151-09	5065
	103151-10	5067

#### **(h) Parts Installation Limitation**

As of the effective date of this AD, no aileron servo actuator having a P/N and S/N listed in figure 1 to paragraph (g) of this AD or figure 2 to paragraph (g) of this AD is allowed to be installed on any airplane, unless the mark “D1” is included on the actuator repair placard.

Note 2 to paragraph (h) of this AD: The mark “D1” on an aileron servo actuator repair placard indicates that the affected part has been refurbished by an approved maintenance organization and is qualified as a serviceable part.

#### **(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, ANM-116, International Branch, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In

accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1137; fax 425-227-1139. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Dassault Aviation's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(j) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0184, dated August 7, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-5594.

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Dassault Service Bulletin F900EX-476, Revision 1, dated June 25, 2014.

(ii) Dassault Service Bulletin F2000EX-350, dated April 9, 2014.

(3) For service information identified in this AD, contact Dassault Falcon Jet, P.O. Box 2000, South Hackensack, NJ 07606; telephone 201-440-6700; Internet <http://www.dassaultfalcon.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:  
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.  
Issued in Renton, Washington, on July 21, 2016.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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